5-6-2016

Measuring What We Value: Using Performance Measures to Achieve Goals

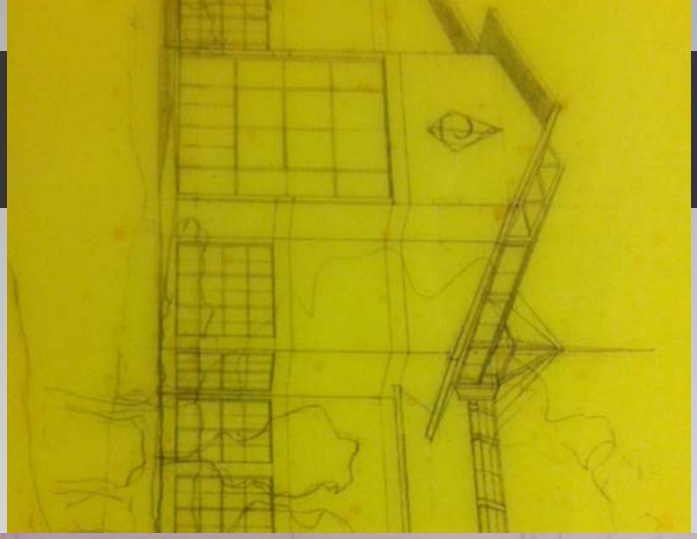
Chris Rall
Transportation For America

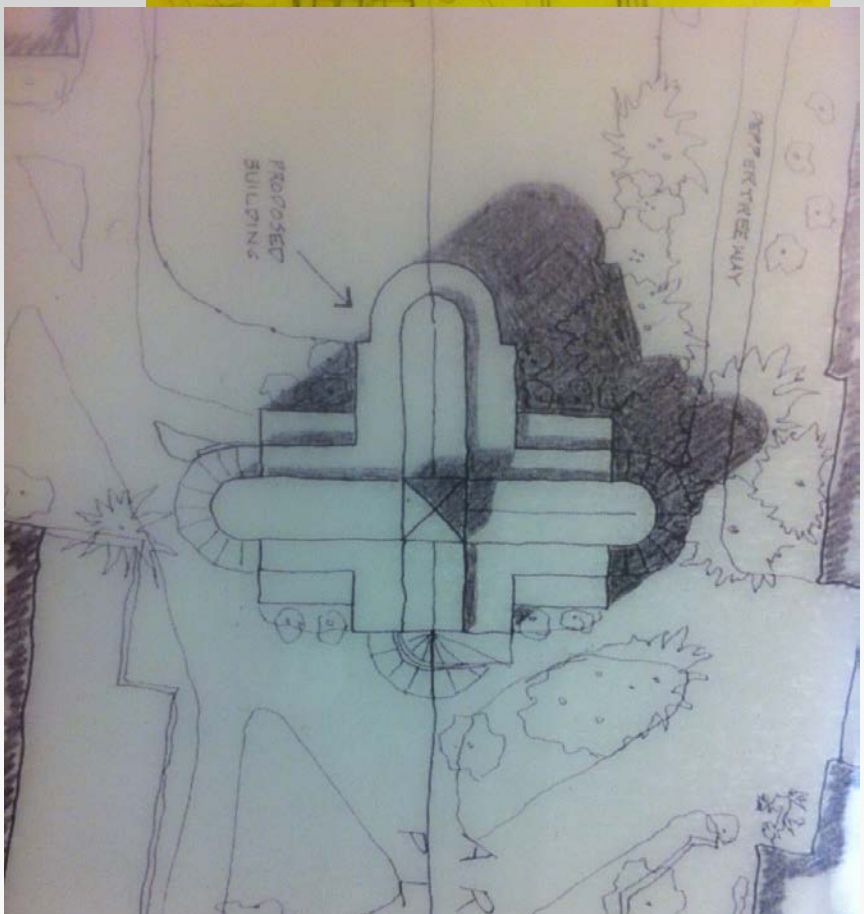
Transportation for America

Measuring What We Value
Using Performance Measures to Achieve Goals

Chris Rall, May 6, 2016
Portland State University

www.T4america.org
@t4america




PROPOSED
BUILDING
EASTERN FREEWAY

About Us

Transportation for America is the alliance of elected, business and civic leaders from communities across the country, united to ensure that states and the federal government invest in smart, locally-driven transportation solutions —because these are the investments that hold the key to our future economic prosperity.

T4A is committed to helping your community create the transportation investments necessary for a prosperous future.

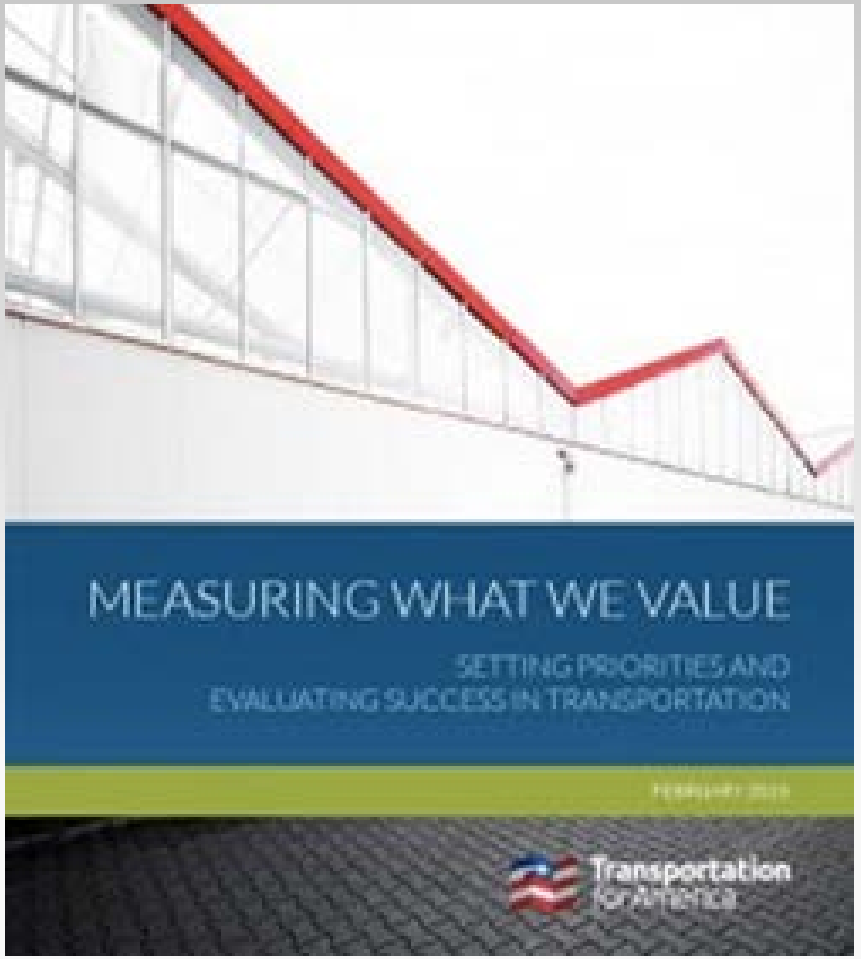
Transportation for America

Our Members Include:

T4A's members are cities, counties, non-profit organizations and businesses of various shapes and sizes.

Reports: Performance Measures

http://t4america.org/2015/02/18/better-bang-for-the-buck-learn-more-about-performance-measurement/



Transportation for America

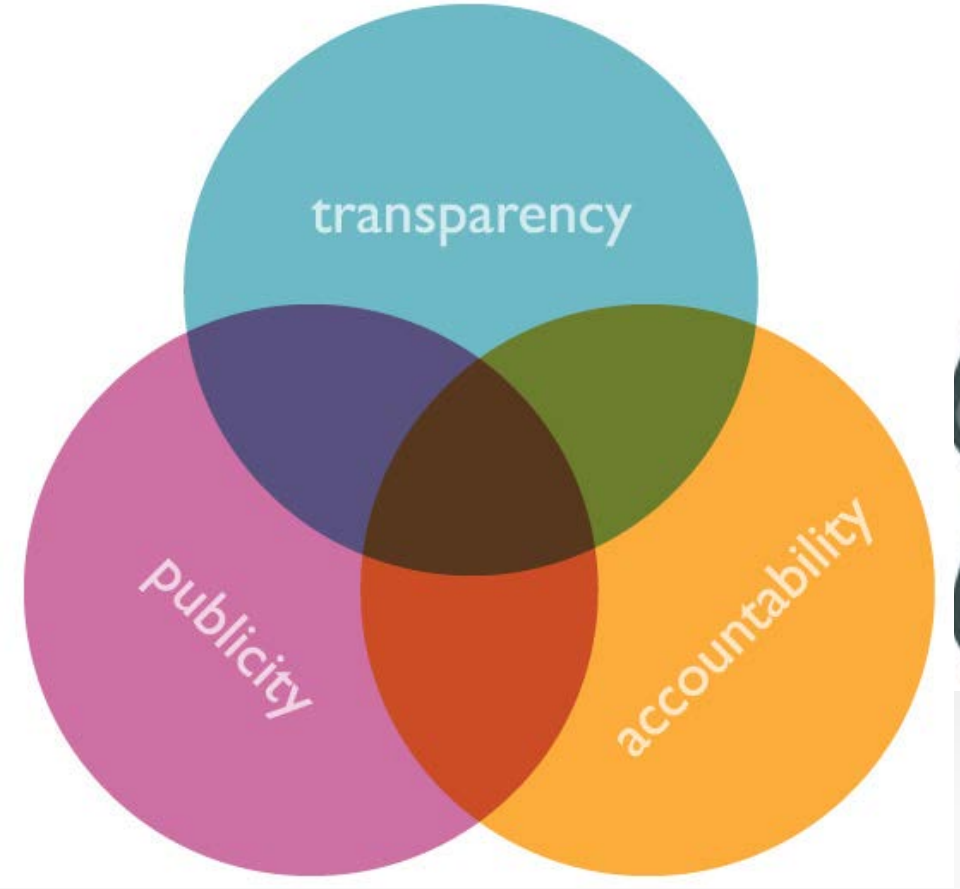
What Are Performance Measures?

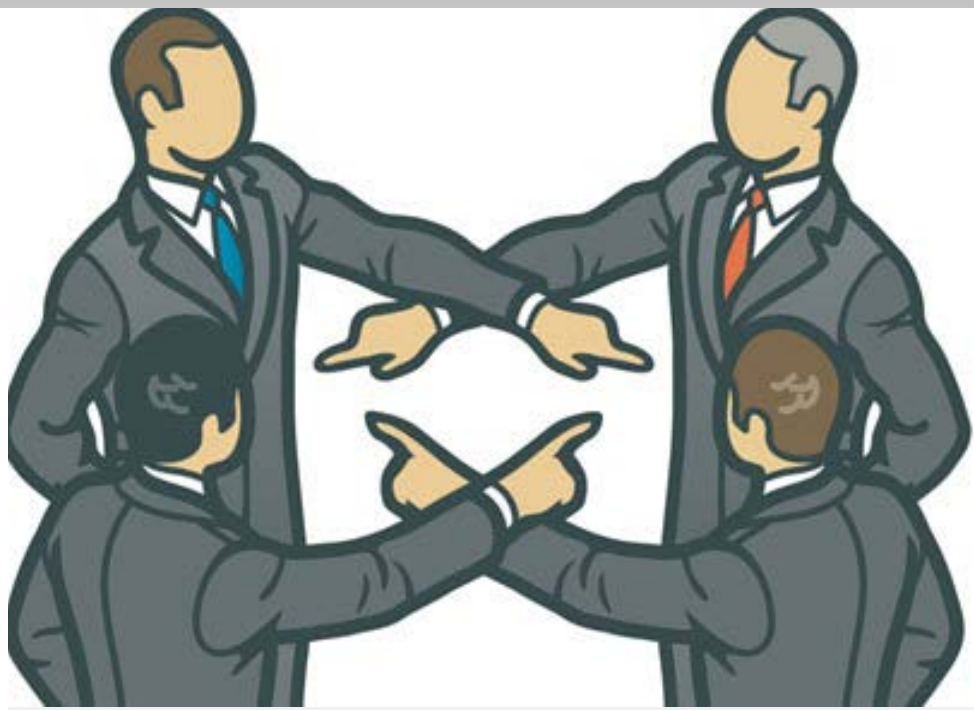
Performance measurement is the process of collecting, analyzing and/or reporting information regarding the **performance** of an individual, group, organization, system or component.

MAP-21 Requirements

1. Condition of pavements on the Interstate System
2. Condition of pavements on the National Highway System
3. Condition of bridges on the National Highway System, including the Interstate System
4. Performance of the Interstate System
5. Performance of the National Highway System
6. Number of serious injuries (in common with NHTSA)
7. Number of fatalities (in common with NHTSA)
8. Number of fatalities per vehicle miles traveled (in common with NHTSA)
9. Number of serious injuries per vehicle miles traveled
10. Traffic congestion
11. On-road mobile source emissions
12. Freight movement on the Interstate System

Benefits of Performance-based Decision Making

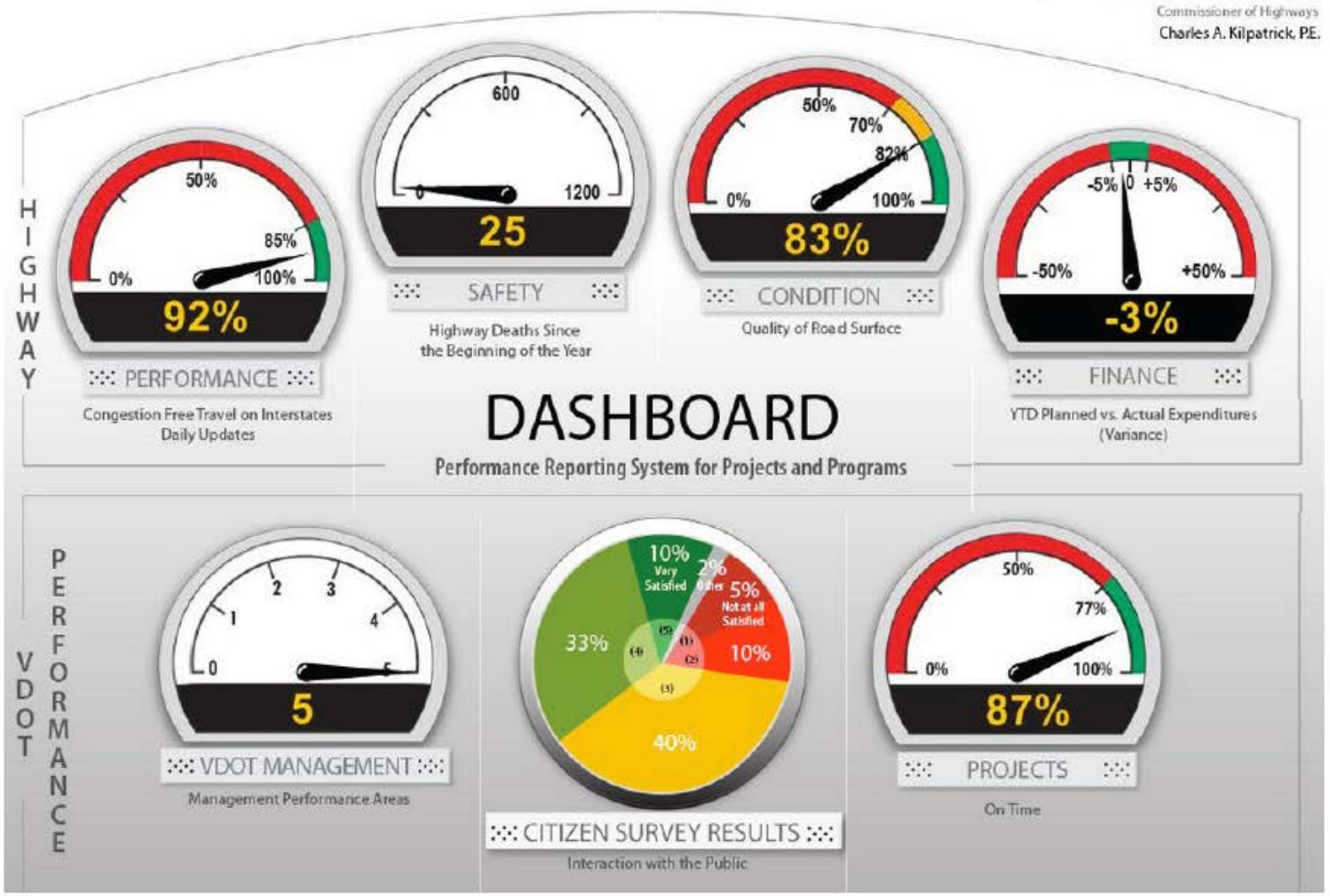




Transportation for America

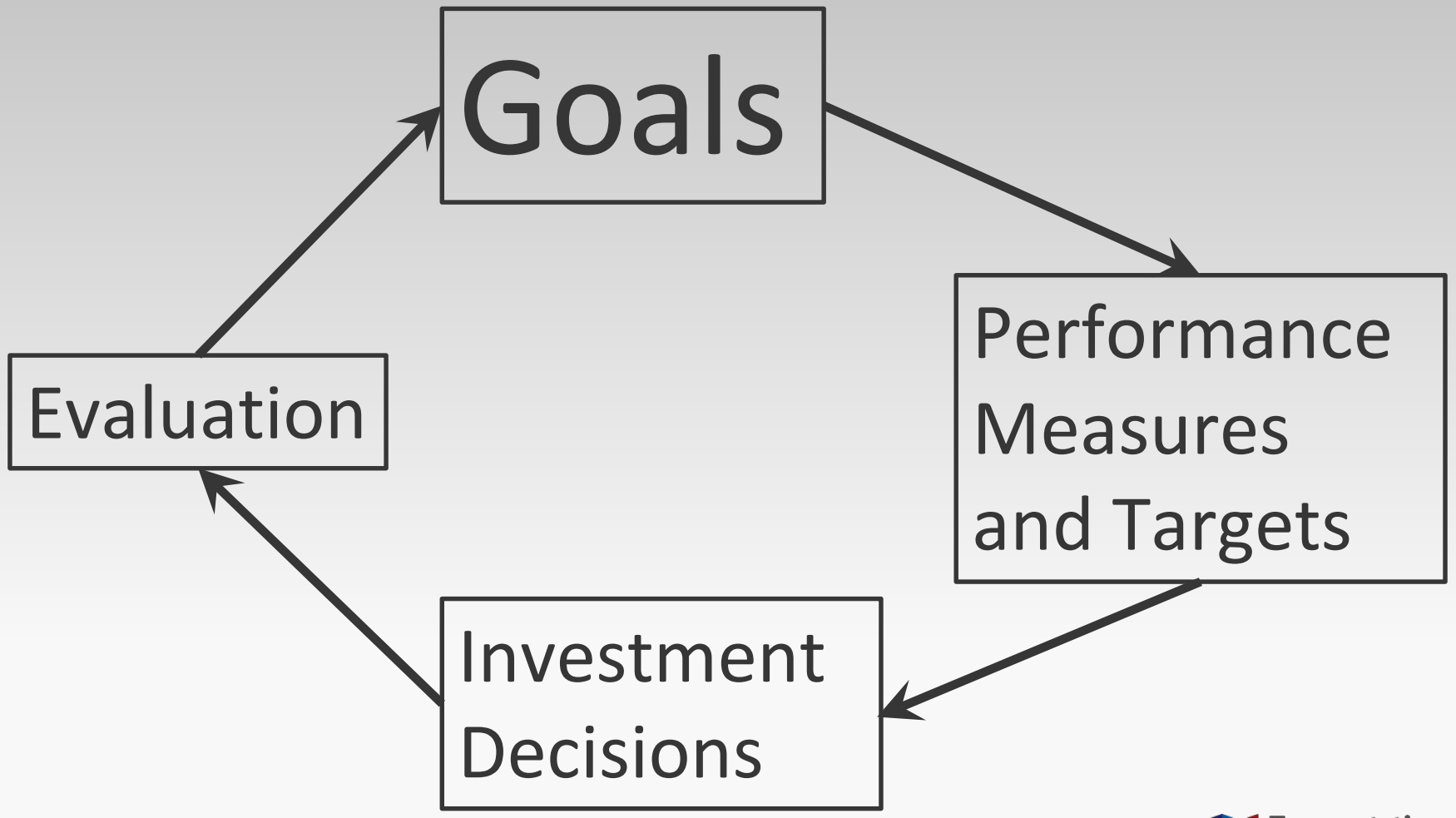
What Are Performance Measures?

Sample dashboard from the Virginia Department of Transportation. Screengrab taken January 26, 2015 from http://dashboard.virginiadot.org.



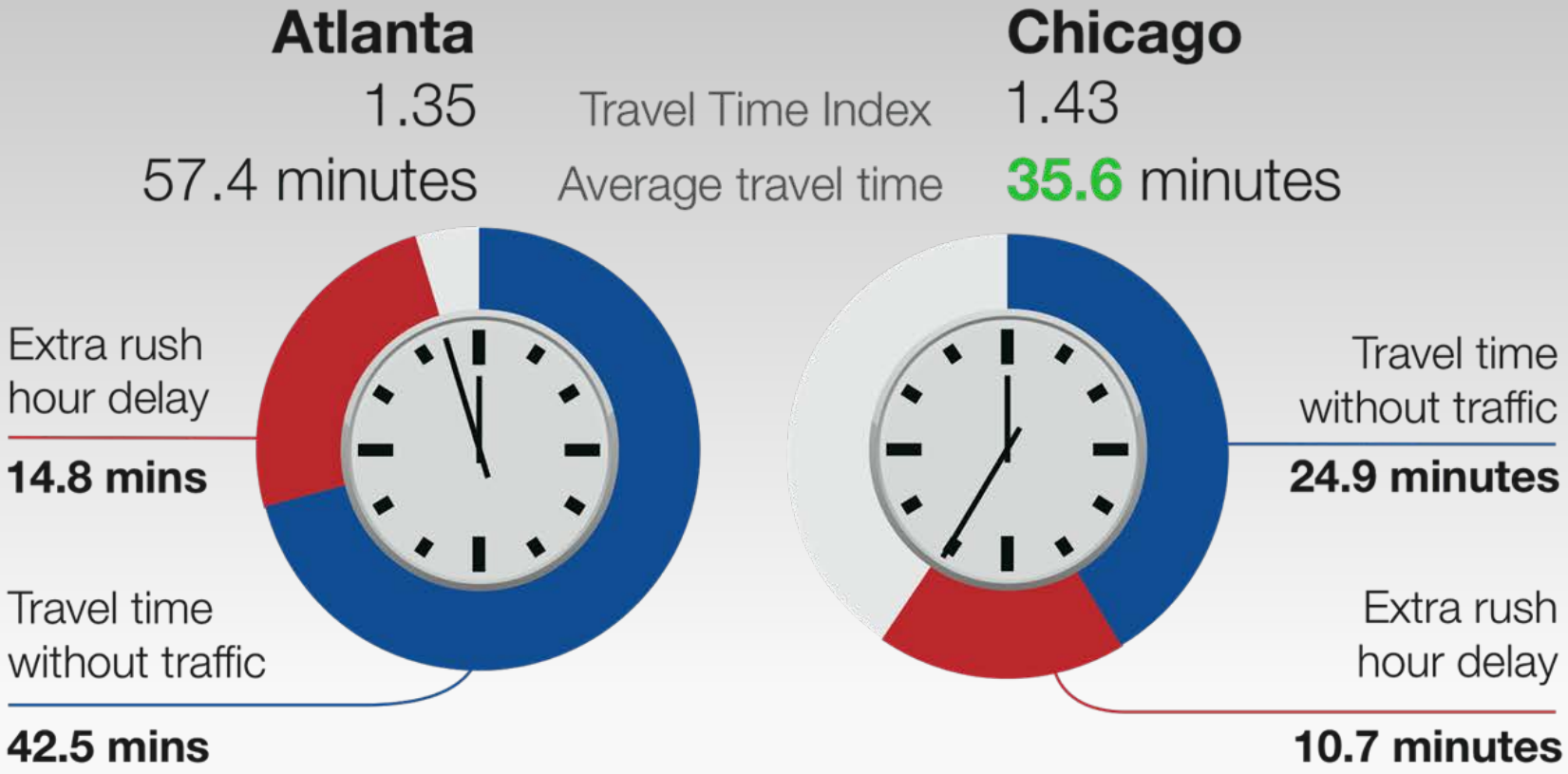
Transportation for America

Framework



Transportation for America

MAP-21 Performance Measures

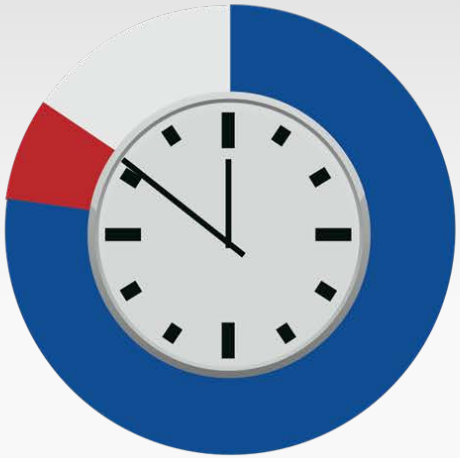


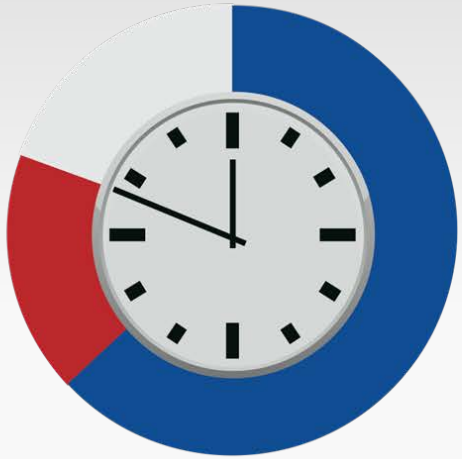
Though Atlanta has a much lower (better) Travel Time Index (TTI), Chicago commuters spend 20 minutes less per peak period trip.

Transportation for America

MAP-21 Performance Measures

Denver 1982		Denver 2007
1.09	Travel Time Index	1.31
50.6 minutes	Average travel time	49.6 minutes
46.4 mins	Travel time without traffic	37.9 minutes
4.2 mins	Extra rush hour delay	11.7 minutes





Transportation for America

USDOT NHS Performance

Transportation for America

2018 Regional Transportation Plan

We've all got places to go. Metro works across the region to help people and goods get there safely, affordably and reliably.

Overview | Getting there | Design | Equity | Finance | Freight | Performance | Safety

Transit

Transportation for America

ECONOMY

ECONOMIC VITALITY

Increase gross regional product

TRANSPORTATION SYSTEM EFFECTIVENESS

Increase non-auto mode share and reduce VMT per capita

Maintain the transportation system

ENVIRONMENT

CLIMATE PROTECTION

Reduce per-capita greenhouse gas emissions from cars and light-duty trucks

OPEN SPACE AND AGRICULTURAL PRESERVATION

Direct all non-agricultural development within the urban footprint

HEALTHY AND SAFE COMMUNITIES

Reduce premature deaths from exposure to particulate emissions

Reduce injuries and fatalities from collisions

Increase average daily time spent walking or biking

EQUITY

ADEQUATE HOUSING

House all of the region's projected housing growth

EQUITABLE ACCESS

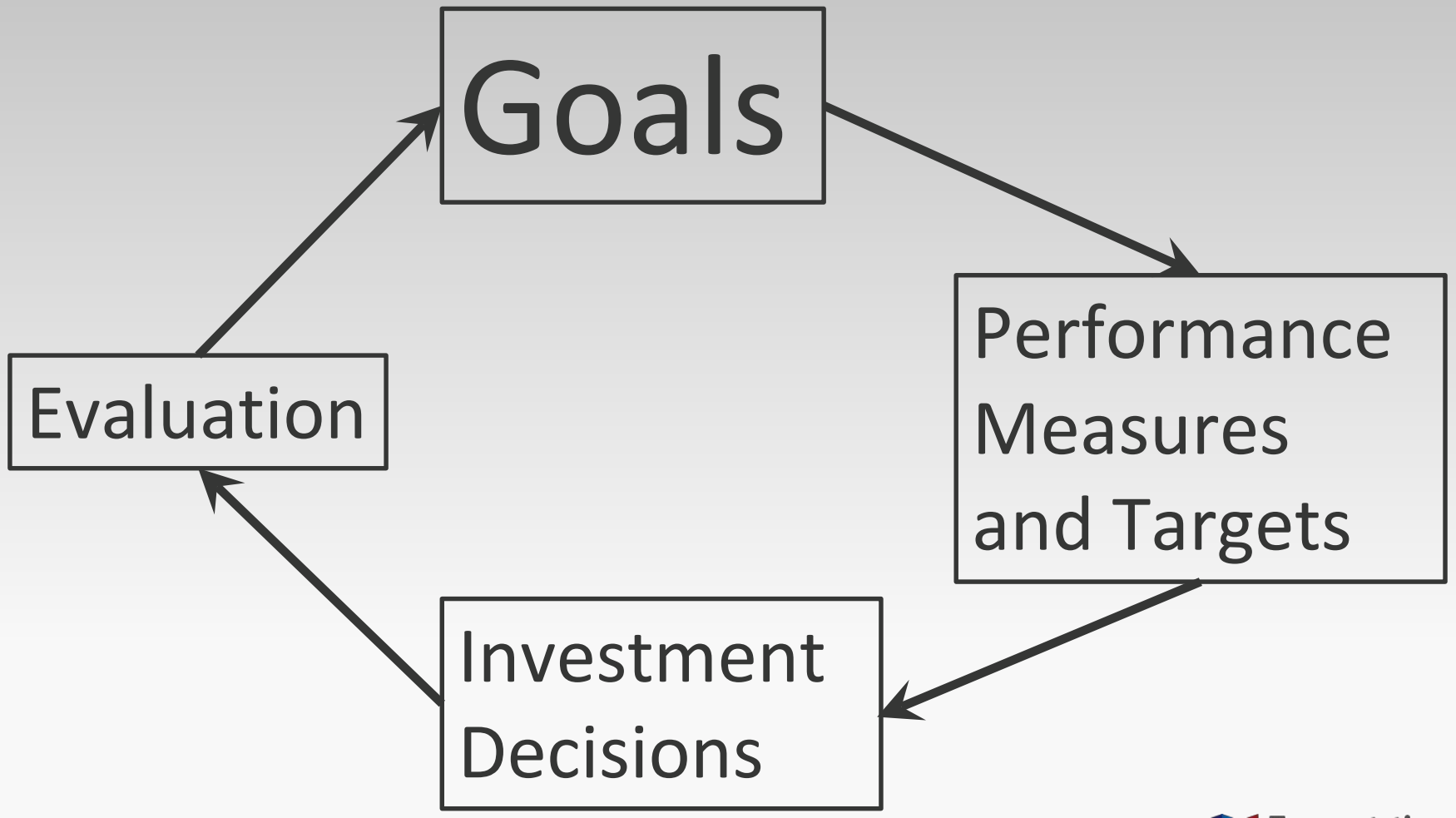
Decrease housing and transportation costs as a share of low-income household budgets

Taking Health into Account

Steve Morgan

Transportation for America

Framework



Transportation for America

VDOT – scoring projects

Category A	Congestion		Safety		Accessibility			Environment		Econ. Dev			Land Use
	Throughput	Delay	F&SI Crashes	F&SI Crash Rate	Access to Jobs	Access to Jobs (Disadvantaged Pop)	Multimodal Choices	Air Quality	Natural and Cult. Resources	Economic Development	Intermodal Access	Travel Time Reliability	Future Land Use Policy Consistency
Measure Score	62	48	20	32	10	20	10	38	28	30	20	20	17
Measure Weight	50%	50%	50%	50%	60%	20%	20%	50%	50%	60%	20%	20%	100%
Weighted Measure Score	31	24	10	16	6	4	2	19	14	18	4	4	17
Raw Factor Score	55		26		12			33		26			17
Factor Weighting	45%		5%		15%			10%		5%			20%
Weighted Factor Score	24.8		1.3		1.8			3.3		1.3			3.4
Project Score	35.9												
Total Project Cost	$20,000,000												
Score Divided by Total Cost	18.0												

Communication

House Bill 2 Project Ap...

Each dot represents an application submitted under the House Bill 2 program as of September 30, 2015. All applications are
14,447 views

SHARE

High Priority Program Projects

All items

District Grant Program

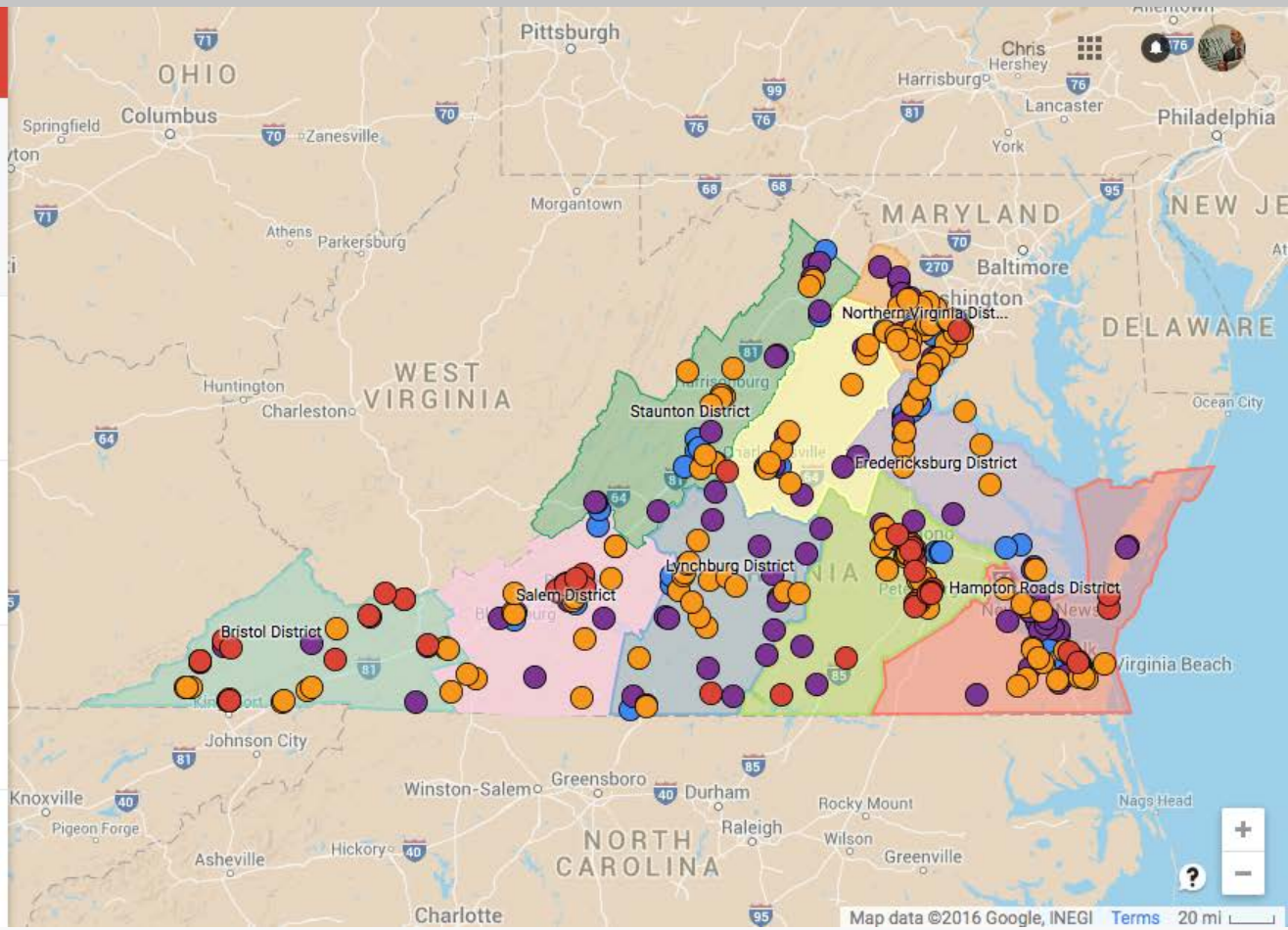
All items

Both

All items

Screened Out

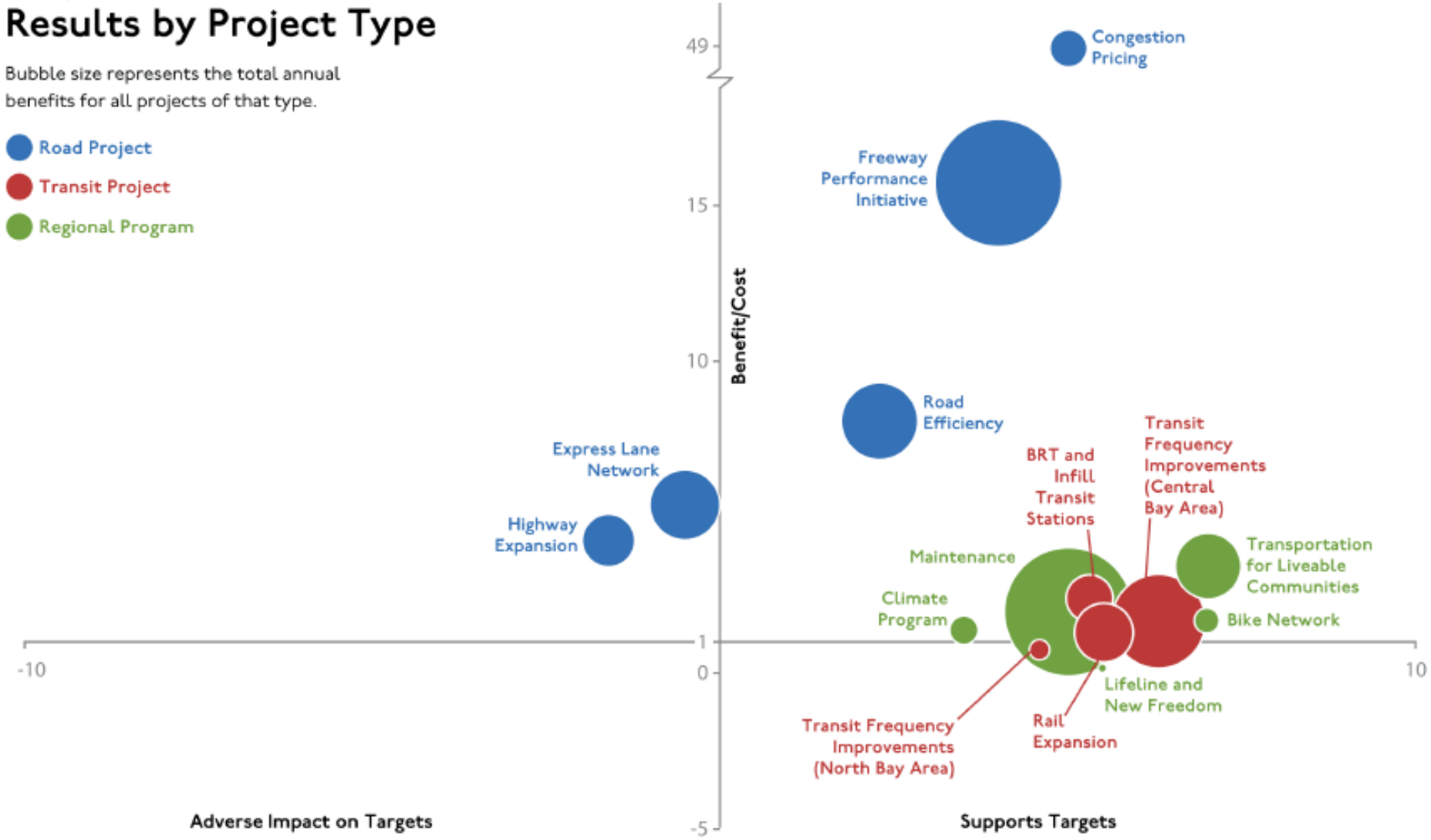
All items



Transportation for America

Project Performance Assessment: Results by Project Type

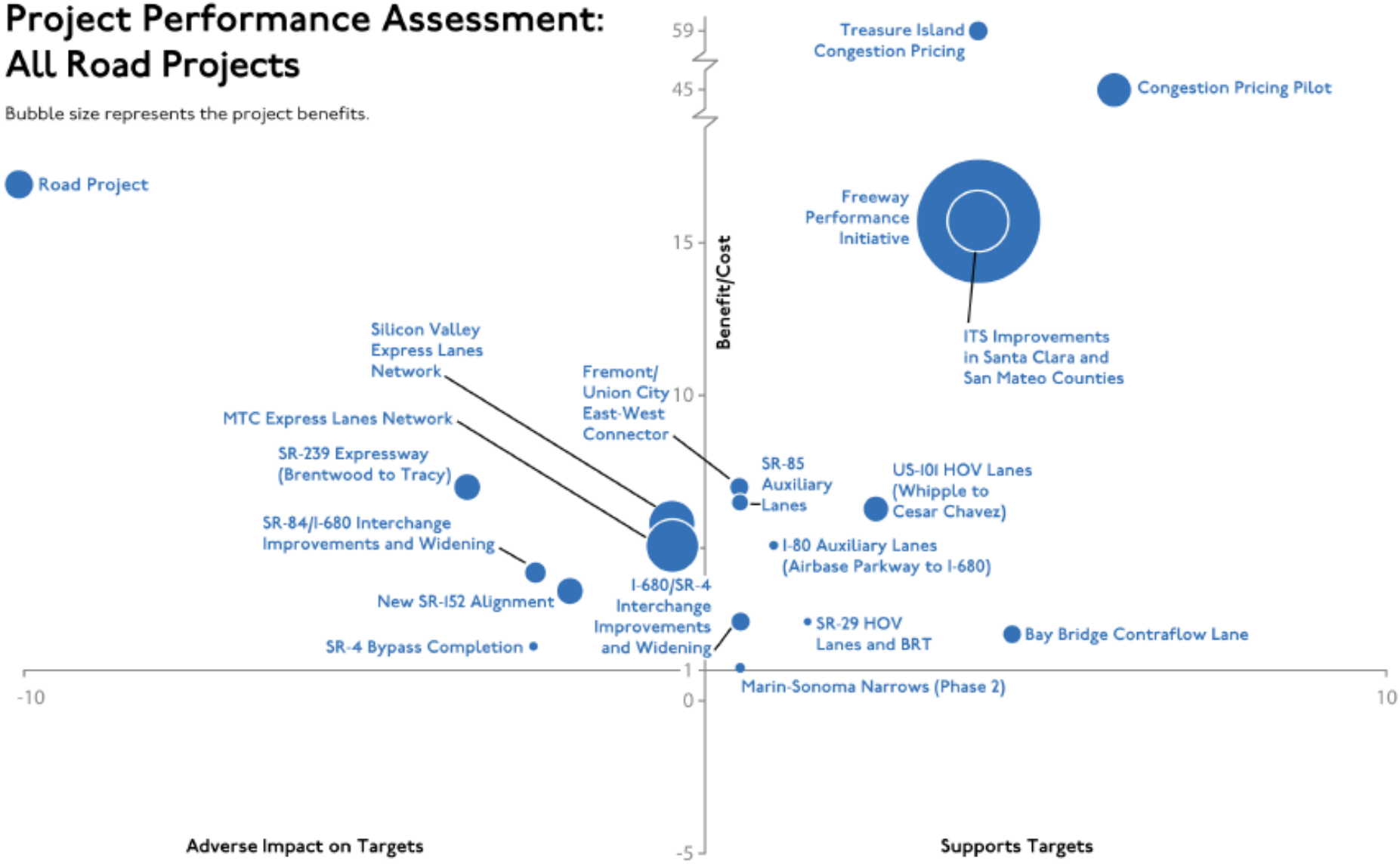
Bubble size represents the total annual benefits for all projects of that type.



Transportation for America

Project Performance Assessment: All Road Projects

Bubble size represents the project benefits.



Sample High-Performing Projects

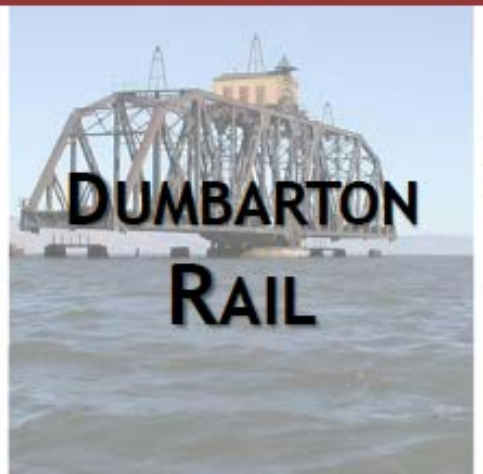
Prioritized for Regional Funding

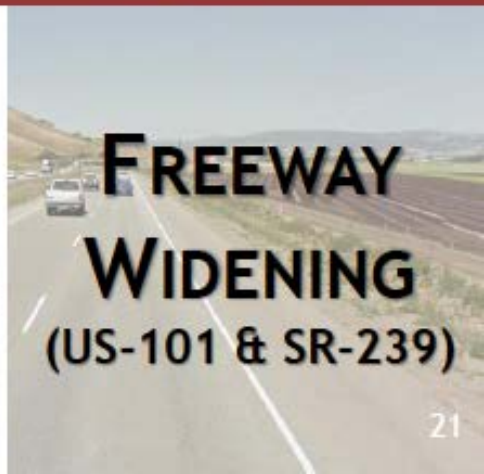
Sample Moderate-Performing Projects

"Nothing to See Here, Move Along"

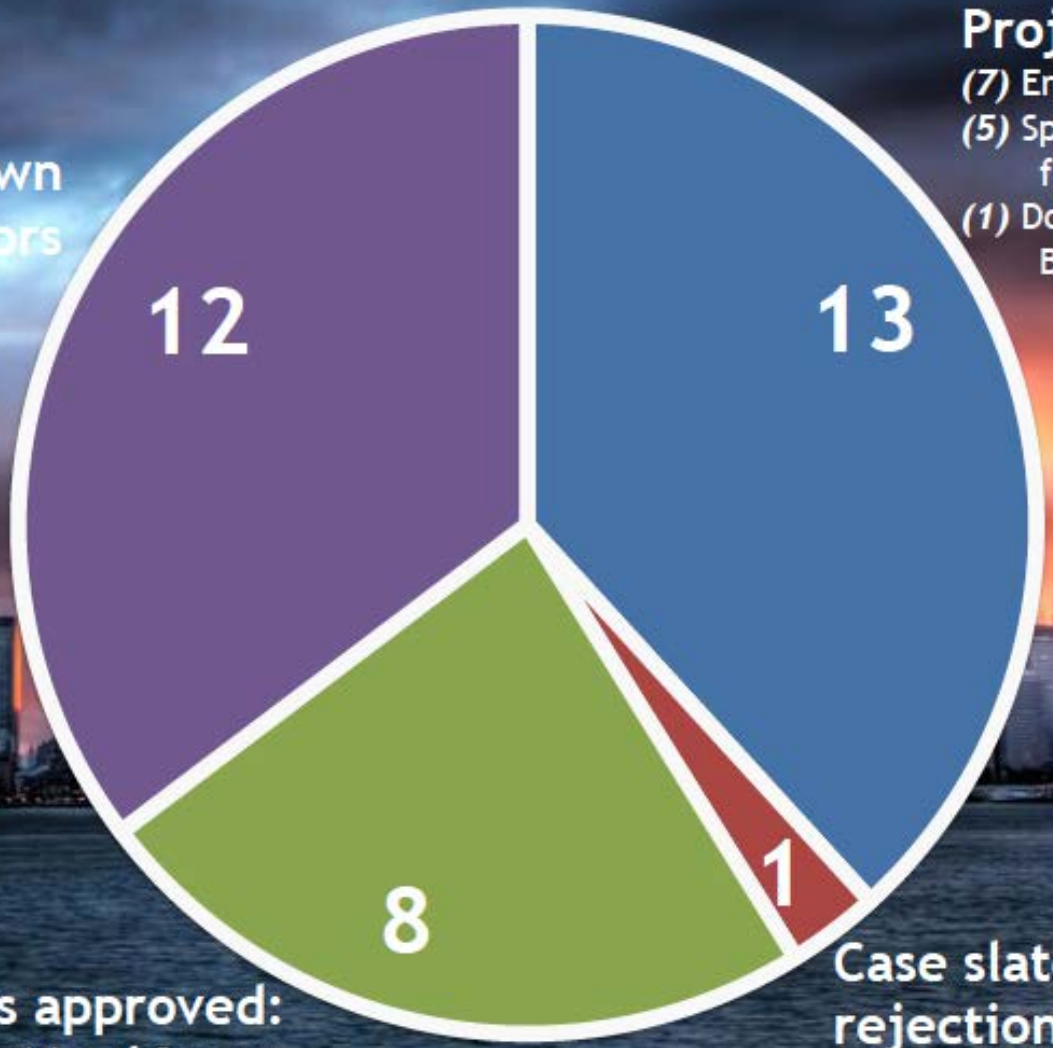
Sample Low-Performing Projects

Required Compelling Case for Inclusion in Plan





Implications of Compelling Case Requirement for Low-Performing Projects



Projects withdrawn by sponsors

Projects re-scoped:
(7) Environmental phase only
(5) Sponsor agreed to fully fund project locally
(1) Down-scoped to achieve B/C ratio greater than 1

Compelling cases approved:
(6) Communities of Concern
(1) Air quality
(1) Recreational trips

Case slated for rejection; "settled out of court"

Image Source: http://www.flickr.com/photos/trilogyphy/5102434063/sizes/l/

Project Prioritization

Transportation for America

Transportation for America

t4america.org

chris.rall@t4america.org

Photo by Terry Frederic